

SECTION I: AMENDMENTS TO THE CLAIMS

Please amend claims 1-11, 13-16, 18, 21, 22, 24, 25, and 28, and cancel claims 19 and 29, as set forth in the following complete listing of the claims of the application.

1. (Currently amended) A display device (~~101~~) for displaying a three dimensional image such that different views are displayed according to ~~the~~ different viewing angles ~~angle~~, the display device including:

a display panel (~~15, 53~~) having a plurality of separately addressable pixels (~~0...10~~) for displaying said image, the pixels being grouped such that different pixels in a group (~~16~~) correspond to different views of the image;

a display driver (~~52~~) for controlling an optical characteristic of each pixel to generate an image according to received image data; and

a colour compensation device (~~60, 70~~) for further controlling said ~~optical characteristic~~ light transmission characteristics of at least some pixels within a group to compensate for a predetermined viewing angle dependency of said optical characteristic.

2. (Currently amended) The display device of claim 1 further including a back panel (~~11~~) for providing a plurality of discrete sources (~~14~~) of illumination, each group (~~16~~) of pixels in the display panel (~~15~~) being positioned to receive light from a respective one of the discrete sources of illumination.

3. (Currently amended) The display device of claim 2 in which the back panel (~~11~~) provides a plurality of line sources of illumination.

4. (Currently amended) The display device of claim 2 in which the back panel (~~11~~) provides a plurality of point sources of illumination.

5. (Currently amended) The display device of claim 2 in which the display panel (~~15~~) is a light-transmissive display panel adapted for viewing from a side opposite to ~~[[the]]~~ a side on which the back panel (~~11~~) is located.

6. (Currently amended) The display device of claim 1 further including a lenticular array ~~(120)~~ positioned adjacent to the display panel ~~(115)~~, each lenticle ~~(121, 122)~~ within the lenticular array focusing light from selected pixels in the display panel.

7. (Currently amended) The display device of claim 6 in which each lenticle ~~(121, 122)~~ within the lenticular array ~~(120)~~ is associated with a ~~said~~ group ~~(16)~~ of pixels.

8. (Currently amended) The display device of claim 1 in which the ~~optical characteristic is a light transmission characteristic and the~~ display driver ~~(52)~~ and colour compensation device ~~(60, 70)~~ in combination are adapted to control the amount of light passing through each pixel according to a three dimensional colour image to be displayed.

9. (Currently amended) The display device of claim 1 in which the colour compensation device ~~(60)~~ comprises a look-up table containing correction values to be applied in respect of each pixel within a group.

10. (Currently amended) The display device of claim 9 in which the correction values are selected according to ~~[[the]]~~ a viewing angle of a respective pixel within ~~[[the]]~~ a group ~~(16)~~.

11. (Currently amended) The display device of claim 10 in which the correction values are selected so as to substantially normalise an intensity of colour and/or its colour point in the colour triangle as displayed by a group of pixels to be independent of ~~[[the]]~~ a viewing angle.

12. (Original) The display device of claim 9 in which the look-up table includes substitution values or offset values as a function of viewing angle to be applied to a frame store.

13. (Currently amended) The display device of claim 1 in which the colour compensation device is adapted to adjust a pixel drive voltage received from the display driver.

14. (Currently amended) The display device of claim 1 in which the display panel includes colour clusters for each physical location within the image, a colour cluster comprising a plurality of ~~said~~ pixel groups each corresponding to a different primary colour, the colour compensation device adapted to control ~~[[the]]~~ an optical characteristic of each pixel within a pixel group and each group within a cluster so as to produce an image colour for each colour cluster that is independent of viewing direction.

15. (Currently amended) The display device of claim 1 in which ~~[[the]]~~ inherent optical characteristics of the display panel ~~(15, 53)~~ are configured such that viewing angle dependence is reduced or substantially minimised relative to the y-axis and the colour compensation device ~~(60, 70)~~ serves to reduce or substantially minimise viewing angle dependence relative to an axis that is transverse to the y-axis.

16. (Currently amended) The display device of claim 15 in which the colour compensation device ~~(60, 70)~~ serves to reduce or substantially minimise viewing angle dependence relative to an axis that is orthogonal to the y-axis (i.e. the x-axis).

17. (Original) The display device of claim 16 incorporated into an object, in which the x-axis is defined as the horizontal axis when the object is in normal use, and the y-axis is defined as the vertical axis when the object is in normal use.

18. (Currently amended) A method for displaying a three dimensional image on a display device such that different views of the image are displayed according to ~~[[the]]~~ different viewing angles ~~angle~~, the method comprising the steps of:

processing image data to form pixel data values for each one of a plurality of separately addressable pixels ~~(0...10)~~ in a display panel ~~(15, 53)~~, the pixels being grouped such that different pixels in a group ~~(16)~~ correspond to different views of the image, the

pixel data values each for controlling ~~an optical characteristic~~ light transmission characteristics of a respective pixel to generate an image;

applying colour correction values to at least some pixel data values within each group to compensate for a predetermined viewing angle dependency of said optical characteristic, by controlling an amount of light passing through each pixel according to a three dimensional colour image to be displayed; and

using said corrected pixel data values to drive pixels of a display panel to generate said image.

19. (Cancelled).

20. (Original) The method of claim 18 in which the colour correction values are obtained from a look-up table containing correction values to be applied in respect of each pixel within a group.

21. (Currently amended) The method of claim 20 [[19]] in which the colour correction values are selected according to [[the]] a viewing angle of a respective pixel within [[the]] a group ~~(16)~~.

22. (Currently amended) The method of claim 18 [[21]] in which the colour correction values are selected so as to substantially normalise a colour and/or its colour point in [[the]] a colour triangle as displayed by a group of pixels to be independent of the viewing angle.

23. (Original) The method of claim 18 in which the colour correction values are derived from a transmission versus voltage characteristic of the display panel, the corrected pixel data values being used to adjust a pixel drive voltage applied to the display panel.

24. (Currently amended) The method of claim 18 in which the pixels are configured in colour clusters for each physical location within the image, a colour cluster comprising

a plurality of ~~said~~ pixel groups each corresponding to a different primary colour, the colour correction values being adapted to control ~~[[the]]~~ an optical characteristic of each pixel within a pixel group and each group within a cluster so as to produce an image colour for each colour cluster that is independent of viewing direction.

25. (Currently amended) The method of claim 18 further including the step of configuring ~~[[the]]~~ inherent optical characteristics of the display panel ~~(15, 53)~~ such that viewing angle dependence is reduced or substantially minimised relative to the y-axis and applying said colour correction values so as to reduce or substantially minimise viewing angle dependence relative to an axis that is transverse to the y-axis.

26. (Original) The method of claim 25 in which the colour correction values are applied to reduce or substantially minimise viewing angle dependence relative to an axis that is orthogonal to the y-axis (i.e. the x-axis).

27. (Original) The method of claim 26 in which the x-axis is the horizontal axis when the display panel is in normal use, and the y-axis is the vertical axis when the display panel is in normal use.

28. (Currently amended) A computer program product, comprising a ~~computer~~ readable storage medium having thereon computer program code ~~means~~ adapted, when said computer program code is loaded onto a computer, to make the computer execute the ~~procedure~~ method of claim 18.

29. (Cancelled).